

AFCESA A-GRAM



AIR FORCE CIVIL ENGINEER SUPPORT AGENCY

99-45

OCTOBER 1999

QUALIFICATION TRAINING PACKAGE (QTP) – RAPID RUNWAY REPAIR

SYNOPSIS:

In association with Applied Research Associates, Inc., we have completed a new contingency qualification training package on Rapid Runway Repair (RRR). This production was automatically distributed to all AF civil engineer organizations in August. The RRR QTP is a computer-based product that supports skill-level upgrade and proficiency training for enlisted civil engineers. This program presents standardized, step-by-step guidance on how to perform specific tasks identified in the Specialty Training Standard portion of the Career Field Education and Training Plan.

RAPID RUNWAY REPAIR:

This CD supports CE career field 3E2X1, Pavements and Construction Equipment Operator.

This seven-lesson QTP introduces RRR vehicles and equipment components and the repair procedures used to restore damaged airfields.

Lesson One – The program opens with a brief history review of the Air Force RRR program, discussing what was done in the past and how the techniques used today evolved. Historic photos and video show early RRR in action.

Lesson Two - Identifies how current RRR equipment is packaged and deployed. This includes set identification, type and quantities of equipment, and how assets are assigned to a particular location based on anticipated number of bomb craters and the threat environment.

Lesson Three - Describes procedures for identifying, preparing, and repairing bomb damage craters in preparation for installation of foreign object damage covers. This lesson discusses minimum operating strip ID and layout, crater upheaval ID, and crater repair procedures. Crater repair procedures address both large and small craters and wet and dry repair procedures.

Lesson Four - Explains procedures for assembling and installing the RRR foreign object damage covers over a crater repair. AM-2 aluminum matting and folded fiberglass mat components, assembly, towing, and installation are discussed in detail.

Lesson Five - Identifies the various spall repair techniques and material required for the RRR program. Teams are established based on tools, equipment, and skill requirements to perform the particular type of repair. Spall preparation, mixing procedures, and placement parameters are covered in detail for three different types of repair material: Silikal, cold mix asphalt, and quick-set concrete.

Lesson Six - Addresses multi-crater repair

sequencing by outlining the procedures for task accomplishment, personnel assignments, and equipment requirements involved in single and multi-crater repairs. The multi-crater repair segment takes the student through a six-crater repair to open a minimum operating strip.

Lesson Seven - Identifies the various steps and techniques in foreign object damage cover maintenance. The first two segments of this lesson cover general maintenance information and patch repair. Segment three deals specifically with AM-2 parking apron and ramp repairs, an almost lost application of AM-2 that always seems to resurrect during contingencies. Folded fiberglass mat inspection intervals and points, along with maintenance procedures, bring the program to a close.

ACCESSIBILITY:

Additional copies of this product can be obtained from HQ AFCESA/CEOT, 139 Barnes Drive, Suite 1, Tyndall AFB FL 32403-5319. Questions regarding distribution of audiovisual products should be addressed to Mr. Ralph Gruber, HQ AFCESA/CEOT, DSN 523-6181.

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